

REMARKS

In response to the Final Office Action mailed November 19, 2008, Applicants request reconsideration based on the amendments herein and at least the following remarks. Applicants respectfully submit that the claims as presented herein are in condition for allowance.

Claims 1-43 are pending in the present application. Claims 1 and 43 have been amended.

No new matter has been added by the amendments.

Applicants respectfully request reconsideration of claims 1-43 based upon the amendments and at least the following remarks.

Specification

The Examiner has objected to the specification. Specifically, the Examiner objected to the wording in paragraph [0013] of the present invention. Therefore, paragraph [0013] has been amended based on the Examiner's comments at page 3 of the Office Action.

Thus, it is respectfully requested that the objection to the specification be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

103(a) rejection of claims 1-12, 15-17 and 30-43:

Claims 1-12, 15-17 and 30-43 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Applicants' Admitted Prior Art (hereinafter "AAPA" in view of Vandiver. (U.S. Patent No. 6,795,789, hereinafter "Vandiver"), as stated on pages 4-15 of the Office Action. Applicants respectfully traverse the foregoing rejection. The Applicants also traverse the Examiner's assertions of obviousness at pages 7-21 and request the Examiner either provide references to support these assertions or withdraw them.

Claim 1 has been amended to recite:

"A method for recording analog signals and digitally encoded information associated with primary devices of an electric power system and secondary devices associated with the electric power system, the method comprising:

receiving a plurality of analog output signals from corresponding transducers of the electric power system;

receiving a plurality of ON/OFF status signals from the primary and secondary devices of the electric power system;

receiving at least one of a time-synchronization analog signal from a time synchronization source and a time-synchronization data packet from the time synchronization source over a communication medium;

maintaining an internal clock synchronized with the synchronization source for time synchronization;

sampling and digitizing the plurality of analog output signals to generate digitized analog output signals;

monitoring at least one of a status and a change of status of the plurality of ON/OFF status signals;

receiving digitally encoded information signals originating in the primary and secondary devices as incoming data packets from a substation protection and control communication network via a communication port;

decoding and analyzing the incoming data packets;

analyzing both the plurality of analog output signals and digitally encoded information signals using a triggering algorithm; and

storing the digitized analog output signals and digitally encoded information signals together with corresponding timing information in a record as fault and

Claim 43 has been amended to recite features somewhat similar to those recited in amended claim 1.

The Applicants respectfully submit that neither the AAPA nor Vandiver, individually or combined, disclose or even suggest “receiving digitally encoded information signals originating in the primary and secondary devices as incoming data packets from a substation protection and control communication network via a communication port; decoding and analyzing the incoming data packets; analyzing both the plurality of analog output signals and digitally encoded information signals using a triggering algorithm; and storing the digitized analog output signals and digitally encoded information signals together with corresponding timing information in a record...” as recited in amended claim 1, for example.

The prior art digital fault recorder (DFR) and sequence of events (SOE) recorder 22 is wire connected and receives only analog voltage/current signals and “on/off” status signals directly from switches and/or protection and control devices connected thereto (see FIG. 1).

The Examiner states that AAPA teaches all elements of those claims except “receiving digitally encoded information signals...” and “decoding and analyzing the incoming packets”, which the Examiner further states is disclosed by Vandiver at columns 4 and 7. The Applicants respectfully disagree.

In contrast, the Applicants respectfully submit that Vandiver merely discloses a test system which provides analog outputs that allow application of power system conditions simulation to a device under test (emphasis added). That is, the test device emulates the device under test. The test device has a communication interface which sends and receives digital communication to and from protection relays, control devices, and meters (see Abstract). The test device interacts with the devices under test over a direct communication link or a substation local area network. As shown in Fig. 2, Vandiver discloses communication based testing of a single

intelligent electronic device (IED), where analog outputs are configured to provide currents 208 and voltages 210 to simulate the secondary currents and voltages seen by the IED under the simulated power system conditions. However, instead of relay outputs being used to simulate the status of primary or secondary substation equipment during the simulated power system fault or other conditions, data packet containing status information are constructed by the test device 202 and sent to the tested device 204 over a communication link (see column 4 lines 40-52). Further, Vandiver discloses the transmission of a digital representation of the simulated current and voltage waveforms in place of the actual analog signals and decoding of the digital representation by either a conversion device coupled to the device under test or directly by the IED.

The Applicants respectfully submit that the test device of Vandiver fails to receive digitally encoded information signals originating in the primary and secondary devices as incoming data packets from a substation protection and control communication network via a communication port; decode and analyze the incoming data packets; analyze both the plurality of analog output signals and digitally encoded information signals using a triggering algorithm; and store the digitized analog output signals and digitally encoded information signals together with corresponding timing information in a record. The test device of Vandiver is not part of a power system it interacts with the devices under test over a direct communication link, for example. And sends and receives digital communication to and from the IEDs. The test device is not comparable to a DFR/SOE recorder and therefore fails to perform the functions of a DFR/SOE recorder.

The Applicants respectfully submit that Vandiver fails to make up for the deficiencies of the AAPA. Further, the teachings of Vandiver are fundamentally different from that of the present invention and the AAPA. In addition, the DFR/SOE recorder of the AAPA is wire connected to the devices and is therefore not capable of receiving digitally encoded information signals originating in the primary and secondary devices as incoming data packets from a substation protection and control

communication network via a communication port. Therefore, there is no motivation to combine the AAPA with Vandiver. (See, e.g., *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). Thus, the combination of AAPA and Vandiver fails to establish a prima facie case of obviousness over the present invention.

Therefore, it is respectfully requested that claims 1 and 43, including claims depending therefrom, i.e., claims 2-42, define over the cited references.

Accordingly, it is respectfully submitted that the rejection of claims 1-12, 15-17 and 30-43 under 35 U.S.C. § 103(a) be withdrawn.

103(a) rejection of dependent claims 2-42:

Claims 13, 14, 18-25 and 29 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over AAPA in view of Vandiver and in further view of Chattopadhyay (U.S. Pub. No. 2002/0103772, hereinafter "Chattopadhyay"). The foregoing rejection is respectfully traversed.

Independent claim 1, from which claims 13, 14, 18-25 and 29 depend, is submitted as being allowable for defining over AAPA in view of Vandiver, as discussed above.

Thus, Applicants respectfully submit that dependent claims 13, 14, 18-25 and 29 of the present invention are patentable over the cited references.

Accordingly, it is respectfully submitted that the rejection of claims 13, 14, 18-25 and 29 under 35 U.S.C. § 103(a) be withdrawn.

Claims 26-28 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over AAPA in view of Vandiver and in further view of Shima (U.S. Patent No. 5,808,587, hereinafter "Shima"). The foregoing rejection is respectfully traversed.

Independent claim 1, from which claims 26-28 depend, is submitted as being allowable for defining over AAPA in view of Vandiver, as discussed above.

Thus, Applicants respectfully submit that claims 26-28 of the present invention are patentable over the cited.

Accordingly, it is respectfully requested that the rejection of claims 26-28 under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

In view of the foregoing remarks distinguishing the prior art of record, Applicants respectfully submit that this application is in condition for allowance. Early notification to this effect is requested. The Examiner is invited to contact Applicants' attorneys at the below-listed telephone number regarding this Amendment or otherwise regarding the present application in order to address any questions or remaining issues concerning the same. If there are any charges due in connection with this response, please charge them to Deposit Account 06-1130.

Respectfully submitted,

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